

Claims.

1. According to this invention a dispenser for a foamable composition comprising,

a container containing the foamable composition under pressure, the container having a valve stem with an exit opening for the composition at its end remote from the container, and which can be moved by application of actuating force to the valve stem to thereby release the composition,

an actuator mounted on said container and by which a user can apply actuating force to the dispensing valve, the actuator comprising,

a flow conduit defining an upstream to downstream flow path for the foamable composition, having a downstream dispensing opening and mated at an upstream end with the valve stem,

the flow conduit being wholly or partly displaceable upon the application of actuating force to the actuator to thereby bear upon the valve stem to actuate the valve stem,

means to communicate actuating force to the flow conduit,

a closure adjacent to the dispensing opening, wherein

in the absence of actuating force the flow conduit is biased into a closed relationship with the closure to obstruct flow of composition through the dispensing opening,

on the application of actuating force to the flow conduit the flow conduit is wholly or partly displaced to actuate the valve stem and the flow conduit is displaced out of its closed relationship with the closure to allow flow of composition through the dispensing opening.

2. Dispenser according to claim 1 characterised in that that the closure is at or immediately downstream of the dispensing opening.

3. Dispenser according to claim 1 or 2 characterised in that the valve is of the type in which actuating force moves the valve stem along the valve stem axis toward the container against a closing bias to thereby open the valve, the flow conduit has a downstream open end and is wholly or partly displaceable along the direction of the

stem axis.

4. Dispenser according to claim 3 characterised in that the flow conduit comprises a first part conduit mated with the valve stem, and a second part conduit having a downstream open end, the first part conduit and second part conduit comprising two respective sleeves, with the first part conduit being a conforming sliding fit within the tubular bore of the second part conduit, with the first part conduit being slideably displaceable relative to the second part conduit,

the closure is adjacent a downstream open end of the second part conduit, so that in the absence of actuating force the first part conduit is biased into a closed relationship with the closure to obstruct flow of composition through the downstream opening, and

on the application of actuating force to the first part conduit the first part conduit is displaced to actuate the valve stem and to displace the first part conduit out of its closed relationship with the closure to allow flow of composition through the dispensing opening.

5. Dispenser according to claim 3 characterised in that the flow conduit comprises a first part conduit mated with the valve stem, and a second part conduit having a downstream open end, the first part conduit and second part conduit comprising two respective sleeves, with the first part conduit being a conforming sliding fit within the tubular bore of the second part conduit, with the first part conduit being slideably displaceable relative to the second part conduit,

the closure is adjacent a downstream open end of the first part conduit, so that in the absence of actuating force the closure is biased into a closed relationship with the second part conduit to obstruct flow of composition through the downstream opening, and

on the application of actuating force to the first part conduit the first part conduit is displaced to actuate the valve stem and to displace the closure out of its closed relationship with the second part conduit to allow flow of composition through the dispensing opening.

6. Dispenser according to claim 4 or 5 characterised in that the sliding fit is such that the respective part conduits make a substantially fluid tight connection and the first part conduit fits slidably generally coaxial within a tubular bore of the second part conduit and can slide reciprocally along the tubular bore of the second part conduit.
7. Dispenser according to any one of the preceding claims characterised in that the closure comprises an obstructor part, and the obstructor part and flow conduit are biased together in the absence of actuating force into a closing relationship and are brought out of this closing relationship on displacement of the flow conduit.
8. Dispenser according to claim 7 when dependent upon claim 4 characterised in that the closure comprises an obstructor part located adjacent to the downstream open end of the second part conduit, and against which obstructor part the downstream open end of the first part conduit is biased when in the closed relationship.
9. Dispenser according to claim 1 or 2 characterised in that valve is of the type in which the actuating force moves the valve stem transverse to the axis of the valve stem, the flow conduit has downstream open end and is wholly or partly displaceable in a direction transverse to the direction of the stem axis, and the closure is located adjacent to this downstream open end, so that in its closed relationship the closure obstructs this downstream open end.
10. Dispenser according to claim 9 characterised in that the flow conduit comprises a first part conduit mated with the valve stem, and a second part conduit flexibly linked to the first part conduit and having the downstream open end, and the second part conduit is displaceable in a direction transverse to the direction of the stem axis so that such displacement is communicated to the first part conduit and thereby to the valve stem.
11. Dispenser according to claim 9 or 10 characterised in that the closure comprises an obstructor part, and the obstructor part and flow conduit are biased

together in the absence of actuating force into a closing relationship and are brought out of this closing relationship on displacement of the flow conduit.

12. Dispenser according to claim 11 when dependent upon claim 10, characterised in that the flow conduit is brought out of the closing relationship with the obstructor part as the second part conduit is displaced transverse to the valve stem axis.

13. Dispenser according to any one of the preceding claims characterised in that the actuator comprises a support which can be mounted on the container in such a manner to support the flow conduit with its upstream end mated with the valve stem, and which also resiliently supports all or part of the flow conduit to thereby resiliently bias the flow conduit and closure together into their closed relationship

14. Dispenser according to claim 13 characterised in that the support comprises, or is engageable with, a cover part for the part of the container that includes the valve stem.

15. Dispenser according to claim 13 or 14 characterised in that the support has a part defining the dispensing nozzle.

16. Dispenser according to claim 13, 14 or 15 characterised in that a second part conduit, with the dispensing opening at its downstream end, is integrally made with or engaged with the support.

17. An actuator, mountable on a container containing a foamable composition under pressure, the container having a valve stem with an exit opening for the composition at its end remote from the container, and which can be moved by application of actuating force to the valve stem, and by which a user can apply actuating force to the dispensing valve,

the actuator comprising,

a flow conduit defining an upstream to downstream flow path for the foamable composition, having a downstream dispensing opening which can be mated at an upstream end with the valve stem,

the flow conduit being wholly or partly displaceable upon the application of actuating force to the actuator to thereby bear upon a mated valve stem to actuate the valve stem,

means to communicate actuating force to the flow conduit,
a closure adjacent to the dispensing opening, wherein
in the absence of actuating force the flow conduit is biased into a closed relationship with the closure to obstruct flow of composition through the dispensing opening,

on the application of actuating force to the flow conduit the flow conduit is wholly or partly displaced to actuate a mated valve stem and the flow conduit is displaced out of its closed relationship with the closure to allow flow of composition through the dispensing opening.

18. A method of dispensing a foamable composition comprising providing a dispenser according to any one of claims 1 to 16 and applying actuating force thereto to thereby bear upon the valve stem and open the valve stem to thereby cause the foamable composition to be dispensed from the dispensing opening.